

Serial No. 107763,438

Art Unit: 1751

Amendments to the Claims

We claim:

1. (Original) A cleaning composition for formed metal articles, the cleaning composition comprising water and:

- A) an ethoxylate of an alcohol having Formula I:



wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 12 to 80 carbon atoms;

- B) an inorganic pH adjusting component; and

C) at least one surfactant that is different than component A, wherein the cleaning composition has an average water-break-free percent reduction of less than 50% after 7 days aging.

2. (Original) The cleaning composition of claim 1 wherein the cloud point of the cleaning composition is greater than about 125° F.

3. (Original) The cleaning composition of claim 1 wherein the cleaning composition is capable of cleaning an exterior wall of an aluminum can such that the percent of total surface area of the exterior wall which supports a continuous film of water is greater than 50% after the aluminum can is cleaned with the cleaning composition.

4. (Original) The cleaning composition of claim 1 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 22 carbon atoms.

5. (Original) The cleaning composition of claim 1 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 16 to 20 carbon atoms.

Serial No. 10/763,438

Art Unit: 1751

6. (Original) The cleaning composition of claim 1 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 23 to 80 carbon atoms.

7. (Original) The cleaning composition of claim 1 wherein R<sub>1</sub> is a mixture of straight-chain and branched alkyl having from 14 to 50 carbon atoms.

8. (Original) The cleaning composition of claim 1 wherein R<sub>1</sub> is CH<sub>3</sub>(CH<sub>2</sub>)<sub>7</sub>-CH=CH(CH<sub>2</sub>)<sub>8</sub>-, CH<sub>3</sub>(CH<sub>2</sub>)<sub>17</sub>-, or CH<sub>3</sub>(CH<sub>2</sub>)<sub>13-14</sub>-.

9. (Original) The cleaning composition of claim 1 wherein component A is a 5 to 80 mole ethoxylate.

10. (Original) The cleaning composition of claim 9 wherein component A is a 5 to 80 mole ethoxylate and R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 20 to 70 carbon atoms.

11. (Original) The cleaning composition of claim 10 wherein:  
component A is a 15 mole ethoxylate and R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having 13 carbon atoms; or  
component A is a 11 to 12 mole ethoxylate and R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having 12 to 15 carbon atoms; or  
component A is a 10 mole ethoxylate and R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having 16 carbon atoms; or  
component A is a 10 mole ethoxylate and R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having 18 carbon atoms; or  
component A is a 12 to 13 mole ethoxylate and R<sub>1</sub> is an 85% linear alkyl having 14 to 15 carbon atoms.

Serial No. 10/763,438

Art Unit: 1751

12. (Original) The cleaning composition of claim 1 wherein component A is a 14 mole or greater ethoxylate.

13. (Original) The cleaning composition of claim 1 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 80 carbon atoms and the ethoxylate is a 10 mole or greater ethoxylate.

14. (Original) The cleaning composition of claim 13 wherein the at least one surfactant that is different than component A is a surfactant selected from the group consisting of propoxylated alcohols, sodium 2-ethyl hexyl sulfate, polyethoxylated straight chain alcohols, modified polyethoxylated straight chain alcohols, alkyl polyethoxylated ethers with a propoxylate cap, modified oxyethoxylated straight chain alcohols, octylphenoxy polyethoxy ethanol, block-copolymers based on ethylene oxide and propylene oxide, and mixtures thereof.

15. (Original) A metallic article treated with the cleaning composition of claim 1.

16. (Original) The cleaning composition of claim 1 wherein the ethoxylate of an alcohol having Formula R<sub>1</sub>-OH is present in an amount from about 0.05 gram/liter to about 15 gram/liter of the cleaning composition; the at least one surfactant that is different than component A is present in an amount from about 0.05 gram/liter to about 15 gram/liter of the cleaning composition; and the inorganic acid is present in a positive amount less than or equal to about 20 gram/liter of the cleaning composition.

17. (Original) The cleaning composition of claim 1 wherein the ratio of the ethoxylate having Formula R<sub>1</sub>-OH to the at least one surfactant that is different than component A is at least 1:1.

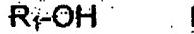
Serial No. 10/763,438

Art Unit: 1751

18. (Original) The cleaning composition of claim 1 wherein  
the ethoxylate of an alcohol having Formula R<sub>1</sub>-OH is present in an amount  
greater than about 15 gram/liter to about 200 gram/liter of the cleaning composition;  
the at least one surfactant that is different than component A is present in an  
amount greater than about 15 gram/liter to about 200 gram/liter of the cleaning  
composition; and  
the inorganic acid is present in a positive amount less than about 600  
gram/liter of the cleaning composition.

19. (Original) A cleaning composition for formed metal articles, the cleaning  
composition comprising water and:

- A) an ethoxylate of an alcohol having Formula I:



wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 12 to  
80 carbon atoms;

- B) an inorganic pH adjusting component; and

C) at least one surfactant that is different than component A, wherein the  
cleaning composition is capable of cleaning an exterior wall of an aluminum can such that  
the percent of total surface area of the exterior wall which supports a continuous film of  
water is greater than 50% after the aluminum can is cleaned with the cleaning composition.

20. (Original) The cleaning composition of claim 19 wherein R<sub>1</sub> is a saturated  
or unsaturated, straight-chain or branched alkyl having from 14 to 22 carbon atoms.

21. (Original) The cleaning composition of claim 19 wherein R<sub>1</sub> is a  
saturated or unsaturated, straight-chain or branched alkyl having from 16 to 20 carbon  
atoms.

Serial No. 10/763,438

Art Unit: 1751

22. (Original) The cleaning composition of claim 19 wherein R<sub>1</sub> is a saturated alkyl having from 16 to 20 carbon atoms.

23. (Original) The cleaning composition of claim 19 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 23 to 80 carbon atoms.

24. (Original) The cleaning composition of claim 19 wherein R<sub>1</sub> is a mixture of straight-chain and branched alkyl having from 14 to 50 carbon atoms.

25. (Original) The cleaning composition of claim 19 wherein R<sub>1</sub> is CH<sub>3</sub>(CH<sub>2</sub>)<sub>7</sub>-CH=CH(CH<sub>2</sub>)<sub>8</sub>, CH<sub>3</sub>(CH<sub>2</sub>)<sub>17</sub>, or CH<sub>3</sub>(CH<sub>2</sub>)<sub>13-14</sub>.

26. (Original) The cleaning composition of claim 19 wherein component A is a 5 to 80 mole ethoxylate.

27. (Original) A cleaning composition for formed metal articles, the cleaning composition comprising water and:

- A) an ethoxylate of an alcohol having Formula I:



wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 12 to 80 carbon atoms;

- B) an inorganic pH adjusting component; and

C) at least one surfactant that is different than component A, wherein the cloud point of a working composition of the cleaning composition is greater than about 125° F.

28. (Original) The cleaning composition of claim 27 wherein the cloud point of the cleaning composition is greater than about 150° F.

Serial No. 10/763,438

Art Unit: 1751

29. (Original) The cleaning composition of claim 27 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 22 carbon atoms.

30. (Original) The cleaning composition of claim 27 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 16 to 20 carbon atoms.

31. (Original) The cleaning composition of claim 27 wherein R<sub>1</sub> is a saturated alkyl having from 16 to 20 carbon atoms.

32. (Original) The cleaning composition of claim 27 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 23 to 80 carbon atoms.

33. (Original) The cleaning composition of claim 27 wherein R<sub>1</sub> is a mixture of straight-chain and branched alkyl having from 14 to 50 carbon atoms.

34. (Original) The cleaning composition of claim 27 wherein R<sub>1</sub> is CH<sub>3</sub>(CH<sub>2</sub>)<sub>7</sub>-CH=CH(CH<sub>2</sub>)<sub>8</sub>-, CH<sub>3</sub>(CH<sub>2</sub>)<sub>17</sub>-, or CH<sub>3</sub>(CH<sub>2</sub>)<sub>13-14</sub>-.

35. (Original) The cleaning composition of claim 27 wherein component A is a 5 to 80 mole ethoxylate.

36. (Original) A cleaning composition for formed metal articles, the cleaning composition comprising water and:

- A) an ethoxylate of an alcohol having Formula I:



Serial No. 10/763,438

Art Unit: 1751

wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 12 to 80 carbon atoms and the ethoxylate is a 14 mole or greater ethoxylate;

- B) an inorganic pH adjusting component; and
- C) at least one surfactant that is different than component A.

37. (Original) The cleaning composition of claim 36 wherein the cloud point of the cleaning composition is greater than about 125° F.

38. (Original) The cleaning composition of claim 36 wherein the inorganic pH adjusting component is an inorganic acid or a base.

39. (Original) The cleaning composition of claim 36 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 22 carbon atoms.

40. (Original) The cleaning composition of claim 36 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 16 to 20 carbon atoms.

41. (Original) The cleaning composition of claim 36 wherein R<sub>1</sub> is a saturated alkyl having from 16 to 20 carbon atoms.

42. (Original) The cleaning composition of claim 36 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 23 to 80 carbon atoms.

43. (Original) The cleaning composition of claim 36 wherein R<sub>1</sub> is a mixture of straight-chain and branched alkyl having from 14 to 50 carbon atoms.

**Serial No. 10/763,438**

**Art Unit: 1751**

44. (Original) The cleaning composition of claim 35 wherein R<sub>1</sub> is CH<sub>3</sub>(CH<sub>2</sub>)<sub>7</sub>-CH=CH(CH<sub>2</sub>)<sub>8</sub>-, CH<sub>3</sub>(CH<sub>2</sub>)<sub>17</sub>-, or CH<sub>3</sub>(CH<sub>2</sub>)<sub>13-14</sub>-.

45. (Original) A cleaning composition for formed metal articles, the cleaning composition comprising water and:

- A) an ethoxylate of an alcohol having Formula I:



wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 80 carbon atoms and the ethoxylate is a 10 mole or greater ethoxylate;

- B) an inorganic pH adjusting component; and
- C) at least one surfactant that is different than component A.

46. (Original) The cleaning composition of claim 45 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 22 carbon atoms.

47. (Original) The cleaning composition of claim 45 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 16 to 20 carbon atoms.

48. (Original) The cleaning composition of claim 45 wherein R<sub>1</sub> is a saturated alkyl having from 16 to 20 carbon atoms.

49. (Original) The cleaning composition of claim 45 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 23 to 80 carbon atoms.

50. (Original) The cleaning composition of claim 45 wherein R<sub>1</sub> is a mixture of straight-chain and branched alkyl having from 14 to 50 carbon atoms.

Serial No. 10/763,438

Art Unit: 1751

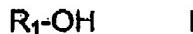
51. (Original) The cleaning composition of claim 45 wherein R<sub>1</sub> is CH<sub>3</sub>(CH<sub>2</sub>)<sub>7</sub>-CH=CH(CH<sub>2</sub>)<sub>8</sub>, CH<sub>3</sub>(CH<sub>2</sub>)<sub>17</sub>-, or CH<sub>3</sub>(CH<sub>2</sub>)<sub>13-14</sub>-.

52. (Original) The cleaning composition of claim 45 wherein component A is a 5 to 80 mole ethoxylate.

53. (Original) A method of cleaning a metal surface, the method comprising:

a) contacting a metal surface with a cleaning composition at a sufficient temperature and for a sufficient time to clean the metal surface, the cleaning composition comprising water and:

A) an ethoxylate of an alcohol having Formula I



wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 12 to 80 carbon atoms;

B) an inorganic pH adjusting component; and

C) at least one surfactant that is different than component A,

wherein the cleaning composition is capable of cleaning an exterior wall of an aluminum can such that the percent of total surface area of the exterior wall which supports a continuous film of water is greater than 50% after the aluminum can is cleaned with the cleaning composition.

54. (Original) The method of claim 53 wherein the metal surface is contacted with the cleaning solution for about 1 second to about 1800 seconds.

55. (Original) The method of claim 53 wherein the metal surface is contacted with the cleaning solution at a temperature from about 60°F to about 180°F.

56. (Original) The method of claim 53 further comprising:

**Serial No. 10/763,438**

**Art Unit: 1751**

- b) rinsing the metal surface with water; and
- c) drying the metal surface.

57. (Original) The method of claim 56 further comprising contacting the metal surface with a conversion coating.

58. (Original) The method of claim 56 further comprising contacting the metal surface with a surface modifying agent.

59. (Original) The method of claim 56 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 22 carbon atoms.

60. (Original) The method of claim 56 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 16 to 20 carbon atoms.

61. (Original) The method of claim 56 wherein R<sub>1</sub> is a saturated alkyl having from 16 to 20 carbon atoms.

62. (Original) The method of claim 56 wherein R<sub>1</sub> is a saturated or unsaturated, straight-chain or branched alkyl having from 23 to 80 carbon atoms.

63. (Original) The method of claim 56 wherein R<sub>1</sub> is a mixture of straight-chain and branched alkyl having from 14 to 50 carbon atoms.